

AMENDMENTS TO THE SPECIFICATION:

Please amend paragraphs [0002] through [0008] as follows:

[0002] The present invention relates to a payment system in which the user requests an information processing through a network and makes payment for the processing by a) electronic money, b) a payment method, c) an electronic money processor in which execution of an information processing is controlled in accordance with a result of a check of validity of electronic money, or d) an image forming apparatus having the electronic money processor.

2. Description of the Related Art

[0003] A system has previously been known in which the user's communication terminal and a printer are connected to a computer network₁ such as a LAN₁ and the printer performs print processing based on the print data transmitted from the user's communication terminal through the computer network. In this system, payment is usually made with a coin apparatus or an IC card apparatus connected to each printer.

[0004] However, the payment method using a coin apparatus or a card apparatus is inferior in operability because it is necessary for the user ~~to take the trouble to go~~ to the place where the printer is placed and insert a coin or set a card into the coin apparatus or the card apparatus connected to the printer.

[0005] To solve this problem, Japanese Laid-open Patent Applications Nos. H11-194686 and H10-55222 propose systems in which a printer and a charging server

are connected through a computer network wherein a charging count corresponding to print processing is provided in the printer. The ~~[[, the]]~~ count values counted by the charging count in response to print processing are totaled up by the charging server (or a service center machine) simultaneously with or after print processing and payment processing is performed at a different time or by a different method from print processing. According to these systems, it is unnecessary for the user to ~~take the trouble~~ to go to the place where the printer is placed, so that operability improves.

[0006] However, with these systems, ~~there is a problem that~~ it is necessary to separately perform payment processing based on the total of the count values obtained by the charging server (or the service center machine). In addition, when it is found that the user is insolvent or the electronic money used is false ~~one in the stage of payment processing~~, if print processing is performed therebefore, it is irrevocable. This problem arises when the user requests not only print processing but also processing such as translation processing or photo processing and transmits data to be processed together with electronic money through a network.

[0007] For example, in a system in which print processing is requested, generally, ~~electric~~ electronic money data is transmitted from the printer to the charging server, and payment is made by the electronic money at the charging server. In ~~the payment by electronic money~~, in order that the electronic money data and the print data waiting at the printer are related to each other, the transmitted electronic money data is processed in order of reception.

[0008] However, processing electronic money data in order of reception at the charging server ~~presents a problem that~~ causes stagnation of processing of one

piece of electronic money data which affects processing of succeeding electronic money data and processing of print data ~~to increase~~ by increasing the waiting time for the payment by electronic money and ~~delay~~ which delays the start of the processing of the print data. This problem arises, like the above-mentioned problem, when the user requests not only print processing but also processing such as translation processing or photo processing and transmits data to be processed together with electronic money through a network.

Page 4 and page 5, paragraphs [0010] through [0014], please amend as follows:

[0010] Yet another object of the present invention is to provide a system and a method for making payment by electronic money that ~~enable reliable payment is~~ reliable.

[0011] Still another object of the present invention is to provide a method for making payment by electronic money that is capable of reducing the waiting time for the electronic money payment ~~by electronic money~~ and is capable of reducing the entire processing.

[0012] These and other objects are attained by an information processing method having the steps of receiving, through a network, data to be information-processed and electronic money by which payment for information processing is made, making a request ~~[[that]]~~ to determine whether the received electronic money is valid or not ~~be checked~~, and when the received electronic money is confirmed to be valid,

automatically starting the processing of the data to be information-processed.

[0013] The above-mentioned objects of the present invention are also attained by an information processing method comprising the steps of receiving, through a network, data to be information-processed and electronic money by which payment for information processing is made; relating the received data to be information-processed and the electronic money by which payment for information processing is made, making a request ~~[[that]]~~ to determine whether the received electronic money is valid or not ~~be checked~~, and when the received electronic money is confirmed to be valid, performing the processing of the data to be information-processed which is related to the validated electronic money ~~confirmed to be valid~~.

[0014] The invention itself, together with further objects and attendant advantages, will best be understood ~~[[by]]~~ with reference to the following detailed description taken in conjunction with the accompanying drawings.

Page 5, paragraph [0018], please amend as follows:

[0018] FIG. 4 is a view showing relating and separation of electronic money data ~~[[and]]~~ to print data;

Page 6 and page 7, paragraphs [0025] through [0027], please amend as follows:

[0025] Referring to FIG. 1, reference number 1 represents a personal computer (hereinafter, referred to as PC) used by the user, and reference numeral 2 represents an electronic money processing server that requests ~~[[for]]~~ issuance of electronic money and performs procedures to issue electronic money. The PC 1 and the electronic money processing server 2 constitute a user side subsystem. Reference number 3 represents a printer, and reference numeral 4 represents a print server that manages the printer 3. The printer 3 and the print server 4 constitute a printer side subsystem. Reference number 5 represents an electronic money issuing server that issues electronic money, and reference numeral 6 represents a payment institution server that handles electronic money. The electronic money issuing server 5 and the payment institution server 6 constitute an electronic money issuer side subsystem. These subsystems constitute a payment system by being connected to one another through a network such as a LAN or the Internet. The electronic money issuing server 5 and the payment institution server 6 may be integrated.

[0026] Next, the relationship among the PC 1, the electronic money processing server 2, the printer 3, the print server 4, the electronic money issuing server 5 and the payment institution server 6 ~~in these subsystems~~ will be described ~~concretely~~.

[0027] The PC 1, which has a keyboard and a mouse as well as a display portion such as a CRT (cathode-ray tube) display or an LCD (liquid crystal display), transmits through the network a request for issuance of a necessary amount of electronic money to the electronic money processing server 2 by a predetermined operation by the user. In this case, the necessary amount is predetermined based on the size, color and density. A ~~[[, and a]]~~ request for issuance of electronic money is transmitted in accordance with the necessary amount. Instead of doing this, the

following may be performed: The necessary amount is determined by application software or the like by executing printing processing, and a request for issuance of electronic money is automatically transmitted in accordance with the necessary amount.

Page 7 through page 8, paragraph [0029], please amend as follows:

[0029] Receiving the request for issuance of electronic money from the electronic money processing server 2, the electronic money issuing server 5 transmits a request for authentication to the payment institution server 6 to refer to a payment institution such as a bank for user authentication as to whether the electronic money can be issued to the user or not. By doing this, the issuer of the electronic money can check whether the user performs procedures necessary for issuing electronic money and the electronic money can be exchanged ~~[[with]]~~ for actual currency ~~or not~~.

Page 9 through page 10, paragraphs [0035] to [0036], please amend as follows:

[0035] The printer 3 determines whether the electronic money is valid or not based on the transmitted result of the check of validity of the electronic money, and when the electronic money is valid, executes print processing based on the stored print data corresponding to the electronic money data ~~and being stored~~. When the print

processing is completed, the printer 3 transmits a request for payment for the print processing to the electronic money issuing server 5.

[0036] Receiving the request for payment for the print processing transmitted from the printer 3, the electronic money issuing server 5 checks whether there is ~~[[no]]~~ a problem with the payment request, and when there is no problem, transmits a request for payment to the payment institution server.

Page 10, paragraphs [0039] and [0040], please amend as follows:

[0039] The printer 3 connected to and managed by the print server 4 through a LAN ~~is managed by the print server 4~~. The LAN connecting the printer 3 and the print server 4 is also connected to the Internet.

[0040] The printer 3 comprises: an interface (I/F) portion 7 for inputting and outputting data on the network; an electronic money processing portion 8 that performs processings such as the check of the validity of electronic money and relating ~~[[of]]~~ the electronic money and the print data to each other; a print data storage portion 9 in which print data is temporarily stored while the validity of electronic money is being checked; a print processing control portion 10 for performing printing based on the print data after the validity of the electronic money is checked; and an image forming portion 11.

Page 11, paragraph [0042], please amend as follows:

[0042] The electronic money processing portion 8 has the following functions: a function of determining whether the JOB data received by the I/F portion 7 includes electronic money data or not; a function of separating the electronic money data and the print data in the JOB data so as to be related to each other; a function of storing the print data into the print data storage portion 9; a function of taking out information on the issuer of the electronic money by analyzing the electronic money data; a function of comparing and examining information ~~[[on]]~~ about the issuer of the electronic money and a table of information on transmission to the issuer of the electronic money (or information on transmission to what is referred to in order to obtain the table on the network); and a function of determining whether the electronic money is valid or not based on the result of the check of validity of the electronic money from the electronic money issuing server 5. That is, the electronic money processing portion 8 relates the electronic money data and the print data to each other. Namely, the printer 3 includes the relating function.

Page 12 to page 13, paragraph [0045], please amend as follows:

[0045] The information on the electronic money itself is generally enciphered. The information attached to the print data is referred to by being deciphered, for example, with a password opened to the public. In this case, after being deciphered, the information on the electronic money itself is transmitted to the issuer of the electronic money for validation ~~a check~~. With respect to information that cannot be deciphered

by ordinary users, the entire electronic money data is transmitted to the issuer of the electronic money for validation ~~a check~~ based on the above-mentioned attached related information.

Page 13, paragraphs [0047] and [0048], please amend as follows:

[0047] The method of relating the print data and the electronic money will now be described ~~concretely~~. As shown in FIG. 4, the electronic money processing portion 8 divides a plurality of pieces of JOB data received by the I/F portion 7 into groups (in this embodiment, into Groups A, B and C) by setting addresses ~~by numbering~~ numbered in the order of reception, and then, separates the print data and the electronic money data of each piece of JOB data so as to be related to each other for each group number. Then, the electronic money processing portion 8 temporarily stores the separated print data into the print data storage portion 9 of the printer 3, and transmits the electronic money data to the electronic money issuing server for a ~~check~~ validation of ~~[[the]] validity of~~ the electronic money. By relating the print data and the electronic money data as described above, the print data is stored in a condition where it is related to the electronic money data by the group number, so that even when the reception of the result of the check of validity of the electronic money from the issuer of the electronic money in response to the transmission of the electronic money data is not in the order of input of JOB data, the print data corresponding to the electronic money data can be taken out immediately. Consequently, at the electronic money issuing server, electronic money data can be

handled parallelly, so that the waiting time for the check of the validity of the electronic money and payment can be reduced.

[0048] The print data control portion 10 controls the execution of the print processing based on the print data₁ corresponding to the electronic money₁ ~~[[and]]~~ stored in the print data storage portion 9 in accordance with the result of the check of validity of the electronic money. The image forming portion 11 executes print processing based on the control of the execution of the print processing by the print data control portion 10. As described above, the printer 3 includes an electronic money processor.

Page 17, paragraph [0059], please amend as follows:

[0059] At S706, the information on the issuer of the electronic money analyzed at S705 and the electronic money issuer transmission information in the preregistered table are compared, and whether the corresponding electronic money issuer is present or not is checked. When the corresponding electronic money issuer is absent (NO at S706), the process proceeds to S713, where warning information for notifying the PC 1 ~~that the print data~~ of the absence is transmitted. When the corresponding electronic money issuer is present (YES at S706), the process proceeds to S707, where preparations for data transmission to the electronic money issuing server 5 are made. When data transmission is enabled, part or all of the electronic money data is transmitted to the electronic money issuing server 5, and the process proceeds to S708. When the information on the issuer of the electronic

money includes information necessary for the network connection of the electronic money issuing server 5, the processing at S706 is unnecessary.

Page 22, paragraph [0074], please amend as follows:

[0074] At S108, the PC 1 attaches electronic money data to the relating data to thereby ~~[[relates]]~~ relate the electronic money data to the print data, and at S109, transmits to the printer 3 the relating data to which the electronic money data is attached. Then, like in the above-described embodiment, the printer 3 determines whether the electronic money is valid or not, and then, executes print processing at S110 based on the print data related to the electronic money data.

Page 23, paragraph [0080], please amend as follows:

[0080] According to the above-described embodiment, since the electronic money data and the processing request data are related so as to be ~~[[associatable]]~~ associated with each other and the processing request data corresponding to each electronic money data can be ~~[[grasped]]~~ easily and reliably understood, the electronic money data and the processing request data can be processed parallelly. Consequently, the waiting time for payment by electronic money and the entire processing can be reduced.

Page 24 to page 25, paragraph [0085], please amend as follows:

[0085] According to the above-described embodiment, since the electronic money data and the processing request data (for example, print data) are related so as to be ~~[[associatable]]~~ associated with each other in the image forming apparatus and the processing request data corresponding to each electronic money data can be ~~[[grasped]]~~ easily and reliably understood, the electronic money data can be treated parallelly, so that in image formation performed at the user's request, the waiting time for payment by electronic money can be reduced.